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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0237439 A1**  
Mai (43) **Pub. Date: Oct. 27, 2005**(54) **TOUCH PANEL**(52) **U.S. Cl. .... 349/12**(75) **Inventor: Che-Kuei Mai, Hsinchu City (TW)**(57) **ABSTRACT**

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A touch panel. A top transparent substrate includes a top conductive film on its lower surface. A bottom transparent substrate includes a bottom conductive film on its upper surface. An insulating spacer is located between the two conductive films to separate the top conductive film and the bottom conductive film. A plurality of sensing lines, are each disposed on an edge of the top or bottom conductive film and separated from other conductive films or other sensing lines by an adhesive. At least one grounding loop isolated from the top and bottom conductive films by an insulating region, wherein the grounding loop is electrically coupled to an external ground terminal.

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